

## **REMARKS**

### **Objections to the Claims**

The Examiner has objected to claims 1, 12, 25, 28, and 33 for various informalities. Claims 1, 12, 28, and 33 have been amended as required by the Examiner. Claim 25 has not been amended. Applicant submits that the radio-opaque material recited in claim 25 finds an antecedent basis in claim 21.

### **Drawings**

The Examiner has requested copies of Figures 5C, 5D, and 5E. These figures were filed with the Preliminary Amendment mailed March 22, 2005.

The Examiner objects to the drawings for various informalities. These have been corrected according to the Examiner's suggestion.

### **Specification**

The Examiner objects to the specification for various informalities. The specification has been amended as required by the Examiner.

### **Rejections under 35 U.S.C. § 102**

Claims 1, 4, 9, 11, 30, 31, 34, and 39 stand rejected under 35 U.S.C. 102 as being anticipated by Skillicorn. Applicant respectfully disagrees. Applicant submits that Skillicorn fails to disclose encapsulating components "in a solid, electrically-insulating material containing a radio-opaque material, as disclosed in independent claims 1 and 30. Rather, Skillicorn discloses a block surrounded by a lead sheath (column 5, lines 33-37 and column 6, lines 26-29). The lead sheath is not contained within the material that makes up the block, in contrast to the instant claims. Rather, the lead sheath surrounds the apparatus. Such sheathing may have seams that allow radiation leakage during operation and is difficult to fit around apparatus with complex geometries (see claim 9). In contrast, in independent claims 1 and 30, the radio-opaque material is contained within the electrically-insulating material.

With respect to claims 9 and 39, Skillicorn fails to disclose a molded complex shape. Rather, Skillicorn recites a molded block that is shown in Figure 1 as a rectangular block.

Claims 4, 11, 31, and 34 depend from claims 1 and 30 either directly or indirectly. As a result, Applicant respectfully submits that claims 1, 4, 9, 11, 30, 31, 34, and 39 are patentable in view of Skillicorn.

Rejections under 35 U.S.C. § 103

Claims 2, 3, 12, 18, 20, 32, and 33 stand rejected under 35 U.S.C. 103 as being obvious over Skillicorn in view of Nomikos. Applicant respectfully submits that neither of these references remedies the deficiencies of the other in failing to disclose the invention. As discussed above, Nomikos fails to disclose a resonant converter, as recited in claims 2, 12, and 32. With respect to claim 18, Skillicorn fails to disclose an insulating material containing a radio-opaque material or a molded complex shape. Claim 3 depends from claim 2; claim 20 depends from claim 12, and claim 33 depends from claim 30, discussed above. Applicant submits that claims 2, 3, 12, 18, 30, 32, and 33 are patentable in view of Skillicorn and Nomikos, whether considered separately or in combination.

Claims 5, 21, 23, 25, 29, and 35 stand rejected under 35 U.S.C. 103 as being obvious over Skillicorn in further view of Malcolm. Applicant submits that Malcolm fails to remedy the failure of Skillicorn to disclose the invention as recited in independent claims 1 and 30, from which claims 5 and 35 depend, respectively. With respect to claim 21, Applicant submits that Skillicorn fails to disclose encapsulating electronic components in a solid cast block including a radio-opaque material, as recited in claim 21. Claims 23, 25 and 29 depend from claim 21. Applicant submits that claims 5, 21, 23, 25, 29, and 35 are patentable in view of Skillicorn and Malcolm, whether considered separately or in combination.

Claim 14 stands rejected under 35 U.S.C. 103 as being obvious over Skillicorn and Nomikos in view of Malcolm. Applicant submits that Malcolm fails to remedy the failure of Skillicorn and Malcolm to disclose the subject matter of the invention as recited in claim 12, from which claim 14 depends. Applicant submits that claim 14 is patentable in view of Skillicorn, Nomikos, and Malcolm, whether considered separately or in combination.

Claims 6-8, 15-17, 26-28, and 36-38 stand rejected under 35 U.S.C. 103 as being obvious over Skillicorn, Nomikos, and Malcolm in view of Davies. Applicant respectfully disagrees.

Applicant submits that Davies fails to disclose the use of a conductive layer on the *outside* of an encapsulating block, as recited by claim 5, 14, 21, and 35, from which claims 6-8, 15-17, 26-28, and 36-38 depend. Rather, Davies discloses the use of a conductive layer *inside* an insulative cover (Abstract). Applicant submits that, even if Skillicorn, Nomikos, and Malcolm disclosed the invention as recited in claims 5, 14, 21 and 35, that combining Davies with these references would not result in the invention as recited in claims 6-8, 15-17, 26-28, and 36-38. Applicant submits that claims 6-8, 15-17, 26-28, and 36-38 are patentable over Skillicorn, Nomikos, Malcolm, and Davies, whether considered separately or in any combination.

Claims 10, 19, and 40 stand rejected under 35 U.S.C. 103 as being obvious over Skillicorn and Nomikos in view of Courtois. Applicant submits that Courtois fails to remedy the failure of Skillicorn and Nomikos to disclose the subject matter of the invention as recited in claims 1, 12, and 30, from which 10, 19, and 40 depend. Applicant submits that claims 10, 19, and 40 are patentable in view of Skillicorn, Nomikos, and Courtois, whether considered separately or in any combination.

Claims 13 and 22 stand rejected under 35 U.S.C. 103 as being obvious over Skillicorn, Nomikos, and Malcolm in view of Moulton. Applicant submits that Moulton fails to remedy the failure of Skillicorn, Nomikos, and Malcolm to disclose the invention as recited in claims 12 and 21, from which claims 13 and 22 depend. Applicant submits that claims 13 and 22 are patentable in view of Skillicorn, Nomikos, Malcolm, and Moulton, whether considered separately or in any combination.

Claim 24 stands rejected under 35 U.S.C. 103 as being obvious over Skillicorn and Malcolm in view of Tomita. Applicant submits that there is no indication in Tomita that the epoxy resin disclosed is suitable for use as an electrically insulating material for electronic components used in x-ray emission. Furthermore, even if the combination of Skillicorn and Malcolm resulted in the invention of claim 21, from which claim 24 depends, Applicant submits that the addition of these references to Tomita does not result in the invention of claim 24. Tomita discloses a vacuum casting method for a two-part epoxy. However, claim 24 does not recite a vacuum casting system but a casting system for a two-part epoxy resin. Additionally, in

many epoxy casting systems, the combination of the two parts of the epoxy results in the generation of air bubbles in the epoxy as the two parts are mixed. Therefore, the combination of Tomita with Skillicorn and Malcolm can only be the result of impermissible hindsight reconstruction, because there is no indication in the claim that reducing air bubbles, the motivation cited by the Examiner, is actually a goal of the claim, and there is no indication in Tomita that his disclosure is appropriate for use with high voltage equipment. Applicant submits that claim 24 is patentable in view of Skillicorn, Malcolm, and Tomita, whether considered separately or in any combination.

Claim 41 stands rejected under 35 U.S.C. 103 as being obvious in view Skillicorn in further view of Aitken. Applicant submits that Aitken fails to remedy the failure of the combination of Skillicorn to disclose the invention as recited in claim 30, from which claim 41 depends. Applicant submits that claim 41 is patentable in view of Skillicorn, and Aitken, whether considered separately or in combination.

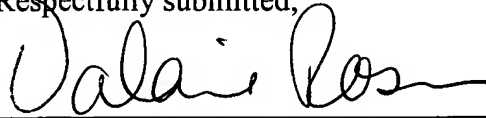
#### Double Patenting

Claims 1-41 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 8-29, 51-60, and 63-74 of U.S. Patent Application No. 10/370,783 (“the ‘783 application”) in view of Aitken. Applicant respectfully disagrees. The Examiner states, “It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to incorporate the claims of Application No. 10/370,783 as modified above with the tin or lead oxide of Aitken...” (Office Action dated April 8, 2005, paragraph 24). Applicant submits that it would have been impossible for one skilled in the art at the time the invention was made to incorporate the claims of the ‘783 application or the claims of the instant application with the teachings of Aitken. At the time that the claimed subject matter was invented, it was neither known nor obvious to those skilled in the art. These are requirements for an invention under U.S. law. See 35 U.S.C. 102-103. It would not have been obvious for a hypothetical skilled artisan to combine any reference with an invention known only to the inventors. Furthermore, Applicant submits that the Examiner has applied an improper standard in provisionally rejecting the claims in making the statement quoted above. The standard for double patenting is whether the claims of the ‘783 application and the instant application are patentably distinct or whether the subject matter of the instant claims is fully

disclosed in the '783 application (MPEP 804). Furthermore, Applicant notes that an amendment to the claims has been filed in the '783 application. Applicant respectfully requests that the Examiner reconsider the rejection in view of both the above arguments and the amendments and remarks presented in support of the '783 application.

A Petition for Extension of Time and the appropriate fee are included herewith. Please charge any fees associated with this filing, or apply any credits, to our Deposit Account No. 03-1721.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Valarie B. Rosen", written over a horizontal line.

Valarie B. Rosen

Registration Number 45,698

Date: July 26, 2005

Choate, Hall & Stewart, LLP  
Exchange Place  
53 State Street  
Boston, MA 02109  
(617) 248-5000  
3961727\_1.DOC

#### AMENDMENTS TO THE DRAWINGS:

Attached replacement drawing sheets and annotated sheets showing changes to the drawings are attached to this Response as an Appendix. These replacement sheets comprise amendments to Figures 2E and 3A. These amendments correct the informalities noted in the objections to the drawings by the Examiner. Specifically, one of the inputs to the transformer in Figure 3A has been renumbered as 113, and the labels for the elements called BC\_FDBK and BC\_CTRL in Figure 2E have been corrected. Accordingly, Applicants respectfully request that all objections to the drawings be withdrawn.

Annotated Marked up drawing

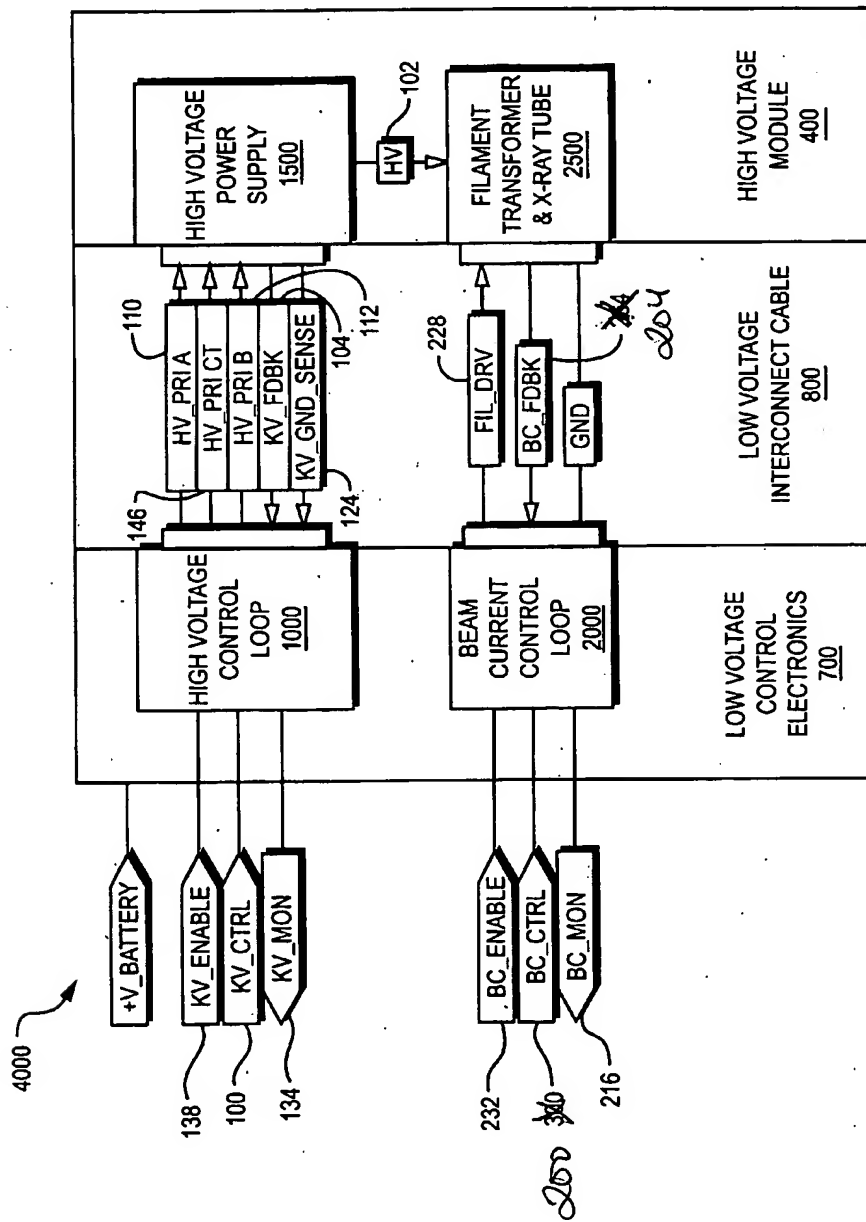


FIG. 2E

[illegible]

FIG. 3A